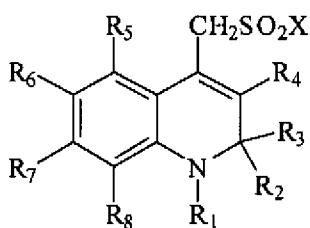


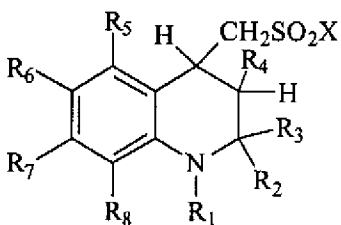
**AMENDMENTS TO THE CLAIMS WITH MARKINGS TO SHOW CHANGES  
MADE, AND LISTING OF ALL CLAIMS WITH PROPER IDENTIFIERS**

1. (currently amended) A Process process for the production of dihydroquinoline compounds of the general formula Ia or of tetrahydroquinoline compounds of the general formula Ib



Ia

Ib

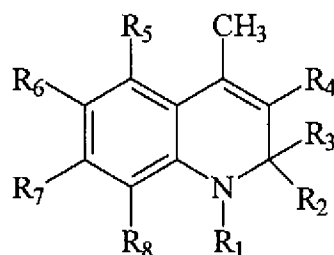


in which R<sub>1</sub> denotes hydrogen or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents,

R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub> and R<sub>8</sub> on each occurrence and independently of one another denote hydrogen, halogen, a hydroxy, amino, sulfo, carboxy or aldehyde group or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents, or the residues R<sub>1</sub> and R<sub>8</sub> together form a ring system and

X denotes OH, halogen, -O-R<sub>9</sub>, -S-R<sub>10</sub> or -NR<sub>11</sub>R<sub>12</sub> where R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub> and R<sub>12</sub> independently of one another denote hydrogen or a C1 to C20

hydrocarbon residue which can optionally contain one or more heteroatoms or/and one or more substituents,  
~~characterized in that~~ wherein  
the corresponding compounds I'a

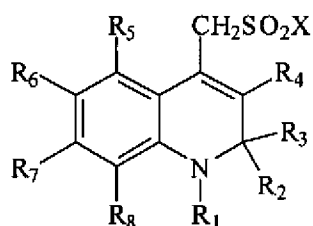


I'a

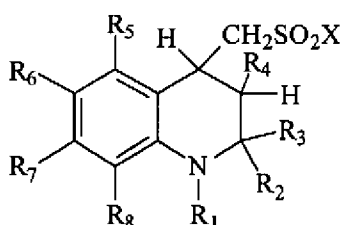
are sulfonated to form Ia (X = OH) and optionally converted by hydrogenation into Ib (X = OH).

2. (Currently amended) ~~The Process~~ process as claimed in claim 1,  
~~characterized in that~~ wherein  
the sulfonation is carried out by means of concentrated sulfuric acid.
3. (Currently amended) ~~The Process~~ process as claimed in claim 1 ~~or 2~~,  
~~characterized in that~~ wherein  
the sulfonic acid group formed in the sulfonation is derivatized.
4. (Currently amended) ~~The Process~~ process as claimed in claim 3,  
~~characterized in that~~ wherein  
the sulfonic acid group is converted into a sulfochloride.
5. (Currently amended) ~~The Process~~ process as claimed in claim 3 ~~or 4~~,  
~~characterized in that~~ wherein  
the sulfochloride group is reacted with a primary or secondary amine to form a sulfonamide.

6. (Currently amended) ~~A Dihydroquinoline~~ dihydroquinoline compound of the general formula Ia or a tetrahydroquinoline compound of the general formula Ib



Ia



Ib

in which R<sub>1</sub> denotes hydrogen or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents,

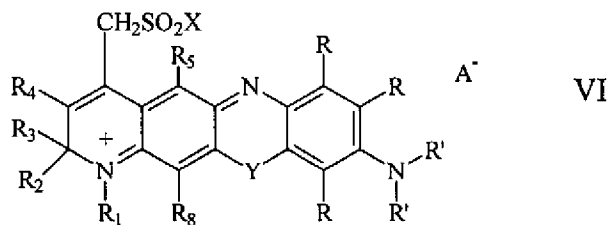
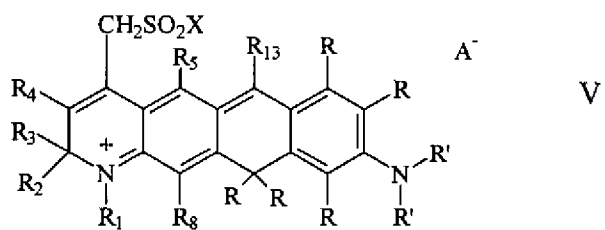
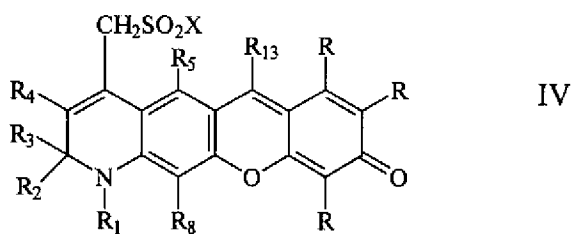
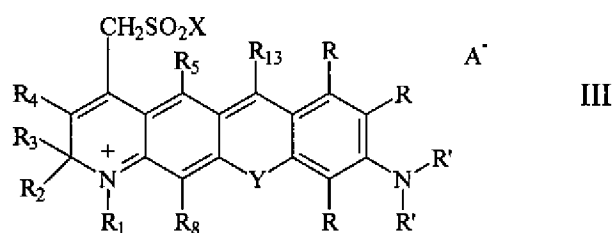
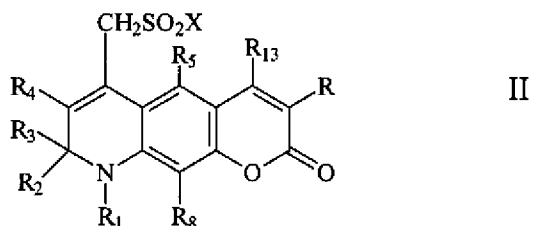
R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub> and R<sub>8</sub> on each occurrence and independently of one another denote hydrogen, halogen, a hydroxy, amino, sulfo, carboxy or aldehyde group or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents, or the residues R<sub>1</sub> and R<sub>8</sub> together form a ring system and

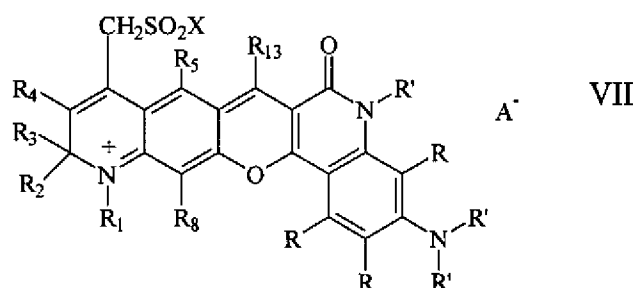
X denotes OH, halogen, -O-R<sub>9</sub>, -S-R<sub>10</sub> or -NR<sub>11</sub>R<sub>12</sub> where R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub> and R<sub>12</sub> each independently of one another denote hydrogen or a C1 to C20 hydrocarbon residue which can optionally contain one or more heteroatoms

or/and one or more substituents, in particular  $-\text{SO}_3\text{H}$ ,  $-\text{PO}_3\text{H}_2$  and  $-\text{COOH}$ .

7. (Currently amended) ~~The Compound~~ compound as claimed in claim 6, wherein  $\text{R}_1$  represents an aryl or alkyl residue and in particular a C5 to C15 aryl or a C1 to C20 alkyl residue,  $\text{R}_2$  and  $\text{R}_3$  are methyl and  $\text{R}_4$  denotes hydrogen.
8. (Currently amended) ~~The Compound~~ compound as claimed in claim 6 ~~or 7~~, characterized in that wherein  
 $\text{R}_7$  represents a hydroxy or methoxy residue.
9. (Currently amended) ~~The Process~~ compound as claimed in claim 6 ~~one of the claims 6 to 8~~, characterized in that wherein  
 $\text{R}_8$  represents a nitroso group.
10. (Currently amended) ~~The Process~~ compound as claimed in claim 6 ~~one of the claims 6 to 7~~, characterized in that wherein  
 $\text{R}_6$  represents a formyl or a hydroxymethyl group.
11. (Currently amended) ~~The Compound~~ compound as claimed in claim 6 ~~one of the claims 6 to 10~~, characterized in that wherein  
X denotes halogen and in particular Cl.
12. (Currently amended) ~~The Compound~~ compound as claimed in claim 6 ~~one of the claims 6 to 11~~, characterized in that wherein  
X represents the residue  $-\text{NR}_{11}\text{R}_{12}$  ~~where the residues  $\text{R}_{11}$  and  $\text{R}_{12}$  are defined as in claim 6.~~

13. (Currently amended) A Process process for the production of dyes of the general formulae II to VII containing  $-\text{SO}_2\text{X}$





in which  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_8$  are defined as in claims 1 to 12,  $R$  on each occurrence can be the same or different and is defined as for  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_8$  and  $R'$  on each occurrence and independently of one another denotes hydrogen or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents, or the residues  $R$  and  $R'$  together form a ring system which can contain one or more double bonds,

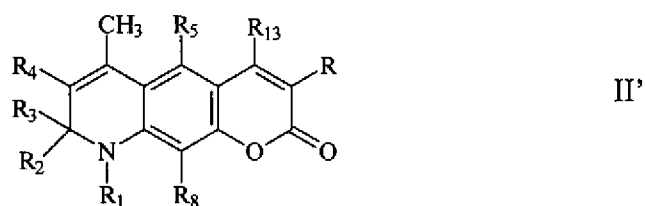
$R_{13}$  on each occurrence and independently of one another denotes hydrogen or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents, where  $R_{13}$  in particular represents hydrogen, aryl, carboxyphenyl, alkyl, perfluoroalkyl, cycloalkyl, pyridyl or carboxypyridyl,

$X$  denotes OH, halogen,  $-O-R_9$ ,  $-S-R_{10}$  or  $-NR_{11}R_{12}$  where  $R_9$ ,  $R_{10}$ ,  $R_{11}$  and  $R_{12}$  each independently of one another denote hydrogen or a C1 to C20 hydrocarbon residue which can optionally contain one or more heteroatoms or one or more substituents, and

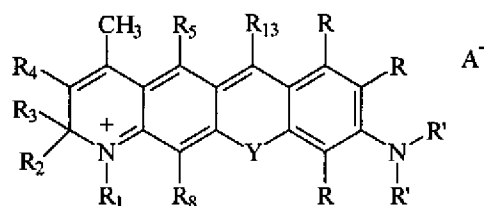
$Y$  in formula III denotes O, S or Se and  $Y$  in formula VI denotes O, S or  $C(R)_2$ ,

~~characterized in that~~ wherein

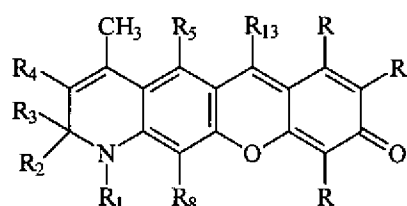
corresponding compounds of formulae II' to VII'



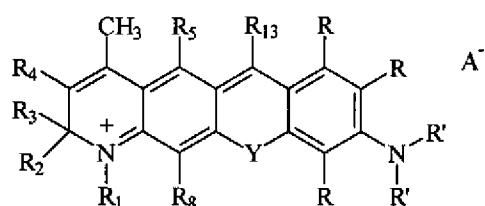
II'



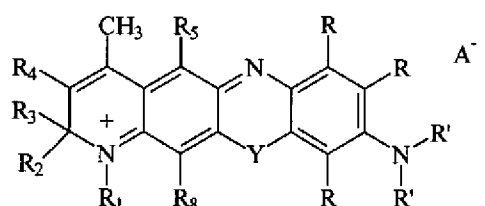
III'



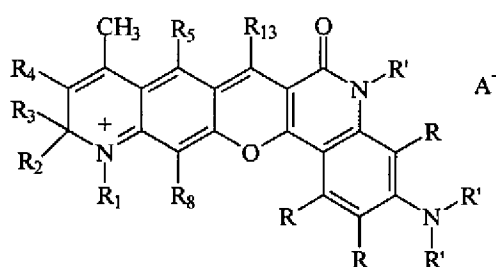
IV'



V'



VI'



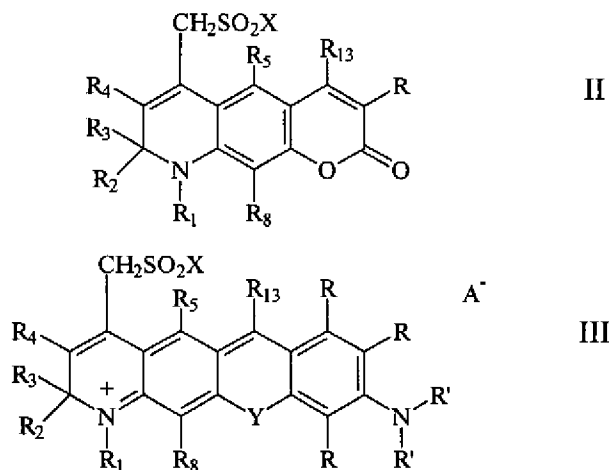
VII'

are sulfonated with the proviso that for compounds of formula III in which Y = O and for compounds of formula IV, X does not denote OH.

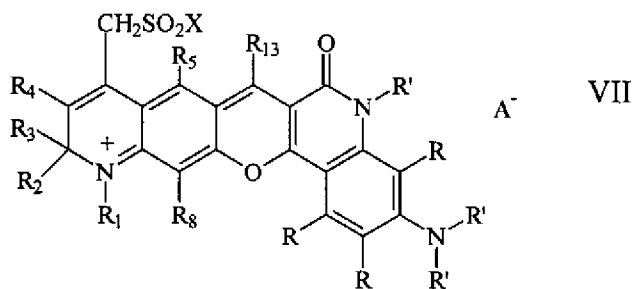
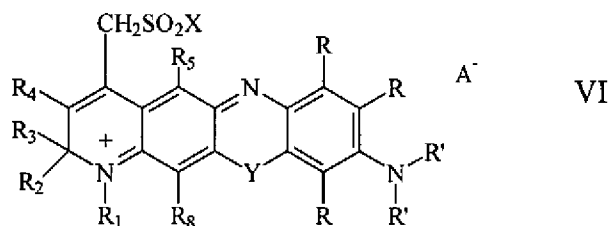
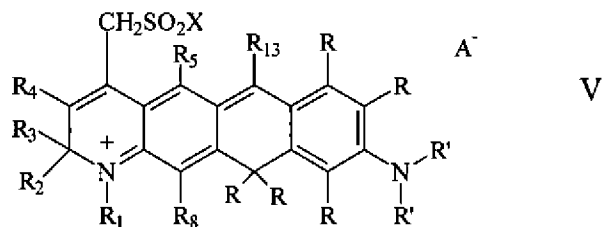
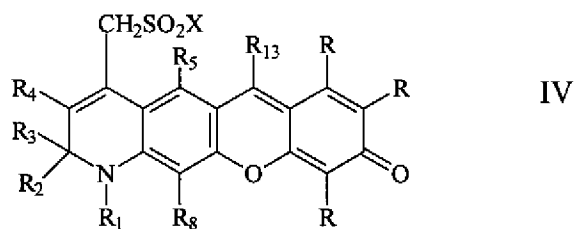
14. (Currently amended) A method for producing polycyclic dyes comprising

~~Use of~~ using a compound as claimed in ~~one of the claims 6 to 12~~ claim 6  
 or of a compound ~~that is obtainable~~ obtained by the process as claimed in  
claim 1 ~~one of the claims 1 to 5~~ to produce polycyclic dyes.

15. (Currently amended) The method ~~Use~~ as claimed in claim 14 wherein the ~~to~~  
~~produce~~ polycyclic dyes are of formulae II to VII.
16. (Currently amended) A process ~~Process~~ for the production of polycyclic  
 dyes, wherein  
characterized in that  
 compounds which have a dihydroquinoline end group with a 4-methyl group  
 are sulfonated and optionally hydrogenated to form a tetrahydroquinoline  
 with the proviso that the polycyclic dye is not a compound of formula III in  
 which Y = O and X = OH or of formula IV in which X = OH.
17. (Currently amended) The polycyclic ~~Polycyclic~~ dye ~~which is obtainable~~  
produced according to the process as claimed in ~~one of the claims 13 to 16~~  
claim 13.
18. (Currently amended) A polycyclic ~~Polycyclic~~ dye of the general formulae II  
 to VII







in which

R' denotes hydrogen or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents,

R on each occurrence and independently of one another denotes hydrogen, halogen, a hydroxy, amino, sulfo, carboxy or aldehyde group or a hydrocarbon group with 1-20 C atoms where the hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents, or the residues R' and R together form a ring system which can contain one or more multiple bonds,

R<sub>13</sub> on each occurrence and independently of one another denotes

hydrogen or a hydrocarbon group with 1-20 C atoms where the

hydrocarbon group can optionally contain one or more heteroatoms or/and one or more substituents, where  $R_{13}$  in particular represents hydrogen, aryl, carboxyphenyl, alkyl, perfluoroalkyl, cycloalkyl, pyridyl or carboxypyridyl,

X denotes OH, halogen,  $-O-R_9$ ,  $-S-R_{10}$  or  $-NR_{11}R_{12}$  where  $R_9$ ,  $R_{10}$ ,  $R_{11}$  and  $R_{12}$  each independently of one another denote hydrogen or a C1 to C20 hydrocarbon residue which can optionally contain one or more heteroatoms or one or more substituents, and

Y in formula III denotes O, S or Se and Y in formula VI denotes O, S or  $C(R)_2$ ,

with the proviso that the dye is not a compound of the general formula III in which  $Y = O$  and  $X = OH$  or of the general formula IV in which  $X = OH$ .

19. (Currently amended) The polycyclic Polycyclic dye as claimed in claim 17 or 18, wherein  
~~characterized in that~~  
X denotes halogen and in particular Cl.
20. (Currently amended) The polycyclic Polycyclic dye as claimed in claim 17 or 18, wherein  
~~characterized in that~~  
X represents the residue  $-NR_{11}R_{12}$  where the residues  $R_{11}$  and  $R_{12}$  are defined as in claim 18.
21. (Currently amended) The polyacrylic Polycyclic dye as claimed in claim 20, ~~characterized in that~~ wherein  
 $R_{11}$  or/and  $R_{12}$  represents an alkyl or aryl residue substituted with  $-COOH$ .

22. (Currently amended) In a method for the detection of an analyte in a sample, the improvement which comprises using a labeled receptor for the analyte, wherein the label is a compound ~~Use of a dye as claimed in one of claim 18 the claims 17 to 21 to label an analyte.~~
23. (Currently amended) The method ~~Use as claimed in claim 22, characterized in that wherein~~  
the analyte is a biomolecule and in particular a peptide or nucleotide.
24. (Currently amended) The method ~~Use as claimed in claim 22 or 23, characterized in that wherein~~  
the labelling occurs by the dye is binding to an NH<sub>2</sub> or SH group of the analyte.
25. (Currently amended) The method ~~Use of claim 22 wherein the label is a dye as claimed in claim 19 to label an analyte~~ in which the dye is bound by coupling to an amino group of the analyte.
26. (Currently amended) The method ~~Use of claim 22 wherein the label is a dye as claimed in claim 21 to label an analyte where~~ and wherein the dye which is ~~for example~~ activated as an NHS ester is bound by coupling to an amino group of the analyte.
27. (Currently amended) The method ~~Use of claim 22 wherein the label is a dye as claimed in one of the claims 17 to 21~~ claim 17 or is coupling to another dye.
28. (Currently amended) The method ~~Use of claim 22 wherein the label is as claimed in claim 27,~~  
~~characterized in that wherein~~

it the label is coupled via an amino group of the other dye to thus form a FRET pair.

29. (New) The polycyclic dye as claimed in claim 19, wherein X denotes chlorine.